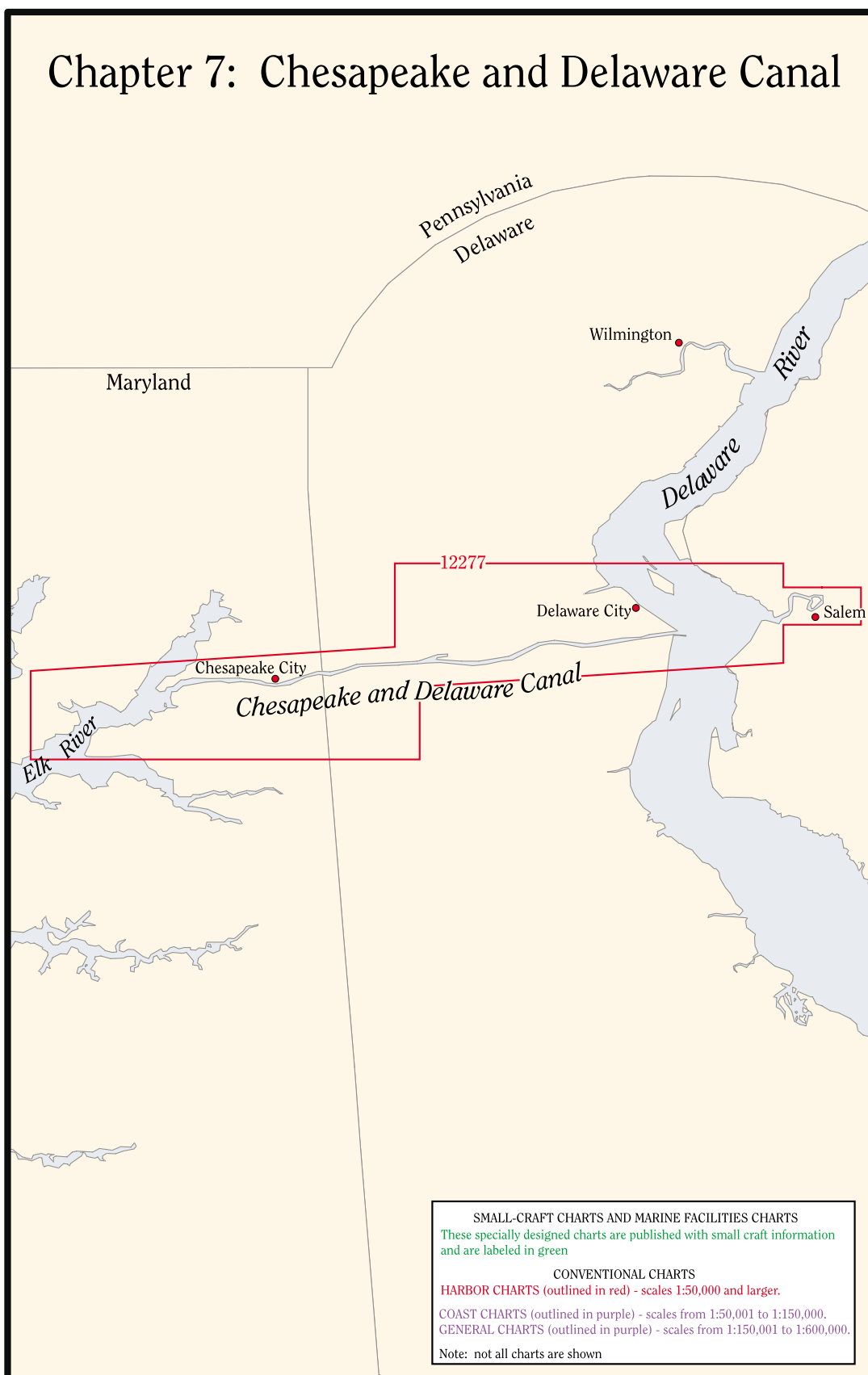


Chapter 7: Chesapeake and Delaware Canal



Chesapeake and Delaware Canal

Chart 12277

(1) The **Chesapeake and Delaware Canal** is a sea-level waterway that extends from Delaware River at Reedy Point, Del., to **Back Creek** at Chesapeake City, Md., thence down Back Creek to Elk River and Chesapeake Bay. The Reedy Point entrance is 51 miles above the Delaware Capes, 35.5 miles below Philadelphia, 62 miles from Baltimore, and 187.5 miles from the Virginia Capes. **Miles** in the following text are the distances in nautical miles along the canal from the middle of Delaware River. **Reedy Point**, at Mile 0.7 on the north side of the Delaware entrance, is jettied and is marked by a light; the jetty on the south side is similarly marked.

(2) **Note.**—The system of marking the channel with buoys and lights is from each entrance and reverses at Chesapeake City. Even numbers and flashing red lights are on the north side and odd numbers and flashing green lights are on the south side between the Delaware Bay entrance and Chesapeake City. Even numbers and flashing red lights are on the south side and odd numbers and flashing green lights are on the north side from Chesapeake City to the west end of the canal. Each bend along the canal is marked by an amber light.

(3) In addition to the navigational aids, the north and south banks of the Chesapeake and Delaware Canal are lighted by mercury vapor luminaries spaced 500 feet apart on poles at a height of 25 feet mean high water. They are designed to illuminate the banks at the waters edge to assist ships navigating the canal at night. The poles are 250 feet apart with a light on every other pole (maintained by Corps of Engineers, U.S. Army).

COLREGS Demarcation Lines

(4) The lines established for Delaware Bay and Chesapeake Bay are described in **80.503** and **80.510**, chapter 2.

Navigation regulations

(5) The following regulations are from 33 CFR 162 and 33 CFR 207:

(6) **§162.40 Inland waterway from Delaware River to Chesapeake Bay, Del. and Md. (Chesapeake and Delaware Canal).** (a) *Applicability.* The regulations in this section are applicable to that part of the inland

waterway from Delaware River to Chesapeake Bay, Del. and Md., between Reedy Point, Delaware River, and Old Town Point Wharf, Elk River.

(7) (b) *Speed.* No vessel in the waterway shall be raced or crowded alongside another vessel. Vessels of all types, including pleasure craft, are required to travel at all times at a safe speed throughout the canal and its approaches so as to avoid damage by suction or wave wash to wharves, landings, riprap protection, or other boats, or injury to persons. Pilots and vessel operators transiting the canal and its approaches are warned that violation of this rule may result in having their privilege to transit the canal suspended. Passages of vessels through the canal will be monitored and specific cases will be investigated where damage by suction or wave wash does occur. Owners and operators of yachts, motorboats, rowboats, and other craft are cautioned that large deep-draft ocean-going vessels and other large commercial vessels ply the canal, and such owners and operators should be particularly careful to moor or anchor well away from the main ship channels, with moorings and lines which are sufficient and proper.

(8) (c) *Right-of-way.* All vessels proceeding with the current shall have the right-of-way over those proceeding against the current. Large vessels or tows must not overtake and attempt to pass other large vessels or tows in the waterway. All small pleasure craft shall relinquish the right-of-way to deeper draft vessels, which have a limited maneuvering ability due to their draft and size.

(9) (d) *Stopping in waterway.* Vessels will not be permitted to stop or anchor in the ship channel.

(10) (e) *Water skiing.* Water skiing in the waterway is prohibited between Reedy Point and Welch Point.

(11) (f) *Sailboats.* Transiting the canal by vessels under sail is not permitted between Reedy Point and Welch Point.

(12) **§ 207.100 Inland waterway from Delaware River to Chesapeake Bay, Del. and Md. (Chesapeake and Delaware Canal); use, administration, and navigation.** (a) *Applicability.* The regulations in this section are applicable to that part of the inland waterway from Delaware River to Chesapeake Bay, Del. and Md., between Reedy Point, Delaware River, and Old Town Point Wharf, Elk River.

- (13) (b) *Supervision.* The District Engineer, Corps of Engineers, Philadelphia, Pa., has administrative supervision over the waterway and is charged with the enforcement of these regulations. The District Engineer from time to time will prescribe rules governing the dimensions of vessels which may transit the waterway, and other special conditions and requirements which will govern the movement of vessels using the waterway. The District Engineer's representative is the Chesapeake City Resident Engineer. The Chesapeake City Resident Engineer through the dispatcher on duty will enforce these regulations and monitor traffic through the canal.
- (14) (c) *Safe navigation required.* Clearance for any vessel to enter or pass through any part of the waterway will be contingent on the vessel's having adequate personnel, machinery, and operative devices for safe navigation. In the event of question as to the ability of any vessel to navigate the waterway safely, a ruling will be made by the dispatcher. The owner, agent, master, pilot, or other person in charge of the vessel concerned may appeal the dispatcher's ruling to the District Engineer whose decision shall be final. A clearance by the dispatcher for a vessel's passage through the waterway shall not relieve the owners, agents, and operators of the vessel of full responsibility for its safe passage.
- (15) (d) *Radio equipment.* Requirements for radio equipment on vessels transiting the waterway are as described in rules governing traffic through the waterway issued by the District Engineer. Vessels not having the mandatory radio equipment will not be permitted to transit the canal.
- (16) (e) *Anchorage and wharfage facilities.* The anchorage basin at Chesapeake City and free wharfage facilities on the west side of the anchorage basin are available for small vessels only. These facilities are of limited capacity, and permission to occupy them for periods exceeding 24 hours must be obtained in advance from the dispatcher at Chesapeake City.
- (17) (f) *Projections from vessels.* No vessel carrying a deck load which overhangs or projects beyond the sides of the vessel will be permitted to enter or pass through the waterway. Vessels carrying rods, poles, or other gear extending above the top of the vessel's mast will be required to lower such equipment to a level with the top of the mast before entering the waterway.
- (18) (g) (Reserved)
- (19) (h) *Tows—(1) Integrated pusher-type tows.* The maximum overall length and extreme breadth of this type of tow which may transit the canal are as described in rules governing traffic through the waterway issued by the District Engineer.
- (20) (2) *All other types of tows.* All ships or tugs engaged in towing vessels not equipped with a rudder, whether light or loaded, shall use two towlines or a bridle on one towline. If the vessel in tow is equipped with a rudder, one towline without a bridle may be used. All towlines must be hauled as short as practicable for safe handling of the tows. No towboat will be permitted to enter the waterway with more than two loaded, or three light barges. Two or more barges or other vessels, not self-propelled, shall be towed abreast and not in tandem, using two towlines unless the towboat is made fast alongside the tow.
- (21) (i) (Reserved)
- (22) (j) *Traffic lights.* Traffic lights are located at Reedy Point and Old Town Point Wharf. These traffic lights are described in the rules governing traffic through the waterway issued by the District Engineer.
- (23) (k) *Drawbridges.* Operation of the Penn Central vertical lift bridge across the canal will be in accordance with regulations promulgated by the U.S. Coast Guard. (See **117.1 through 117.59 and 117.235**, chapter 2, for drawbridge regulations.)
- (24) (l) (Reserved)
- (25) (m) *Refuse and oil.* The depositing of trash, refuse, debris, oil, or other material in the waterway or upon the banks or right-of-way is prohibited. Violators are subject to penalties as prescribed by Federal law.
- (26) (n) *Damage to waterway property.* Damage to the waterway, lands, banks, bridges, jetties, piers, fences, buildings, trees, telephone lines, lighting structures, or any other property of the United States pertaining to the waterway is prohibited.
- (27) (o) *Fish and game.* The fish and game laws of the United States and of the States of Delaware and Maryland, within their respective bounds, will be enforced upon the waters and lands pertaining to the waterway owned by the United States.
- (28) (p) *Grounded, wrecked, or damaged vessels.* In the event a vessel is grounded or wrecked in the waterway or is damaged by accident or successive mechanical breakdown, the owner, agent, or operator shall take prompt action to prevent the vessel from becoming or remaining an obstruction to navigation, and such persons shall also respond to such instructions as may be issued by the District Engineer to prevent the vessel from becoming or remaining a menace to navigation. The lack of reasonable response from owner, agent, or operator may be deemed sufficient cause for the District Engineer to undertake repair or removal of the vessel as he may determine to be in the best interest to the Government.
- (29) (q) (Reserved)
- (30) (r) (Reserved)
- (31) (s) (Reserved)

- (32) (t) *Pilotage*. Any pilot who pilots in the canal shall comply with State laws or Coast Guard regulations and must be licensed for this waterway by the U.S. Coast Guard.
- (33) (u) *Vessels difficult to handle*. Vessels which are observed by the pilot or master in charge, to be difficult to handle, or which are known to have handled badly on previous trips, must transit the canal during daylight hours and must have tug assistance. Such vessels must obtain permission from the dispatcher to enter the canal and must be provided with the number of tugs sufficient to afford safe passage. Agents must make their own arrangements for tug assistance. Such eastbound vessels must clear Reedy Point Bridge, and such westbound vessels the Chesapeake City Bridge, before dark.

Local Regulations

- (34) 1. The following rules governing traffic through the Chesapeake and Delaware Canal are issued to supplement the rules and regulations governing the use, administration, and navigation of the waterway which are prescribed by the Secretary of the Army. These rules were effective 8 August 1975, and were amended effective 1 April 1985 and 2 May 1988. Copies of the approved rules and regulations may be obtained from the District Engineer.
- (35) 2. Traffic through the canal is monitored by the dispatcher at Chesapeake City. Vessels transiting the canal are subject to the following rules:
- (36) a. The maximum overall length of self-propelled vessels which may transit the canal is 886 feet. Those exceeding 760 feet are required to have a bow thruster. The maximum overall length of tugs and tows which may transit the canal is 760 feet.
- (37) b. The maximum combined extreme breadth of vessels, tugs and tows meeting and overtaking each other anywhere between Reedy Point and Town Point, is 190 feet.
- (38) c. Vessels, tugs and tows, or any combination thereof, are required to have radiotelephone equipment as specified by the Vessel Bridge-to-Bridge Radiotelephone Act (Public Law 92-63). The radio requirement applies to the following:
- (39) (1) Every power-driven vessel of three hundred gross tons and upward.
- (40) (2) Every vessel of one hundred gross tons and upward carrying one or more passengers for hire.
- (41) (3) Every towing vessel of twenty six feet or over in length.
- (42) d. Vessels listed in 2.c. above will not enter the canal until radio communications are established with the dispatcher in Chesapeake City. Communications shall be established on channel 13 two hours prior to entering the canal. (Dispatcher Call Sign is WB-33).
- The dispatcher also monitors channel 16 for the purpose of responding to transmissions of an emergency nature. Pilots and shipmasters shall acknowledge receipt of 2 hour clearance and conform with supplemental information listed in 3.e. below. All communications with the dispatcher on these frequencies shall be confined to that necessary to transit the Chesapeake and Delaware Canal.
- (43) e. A westbound vessel must be able to pass either Pea Patch Island or Reedy Island within 1 hour after receipt of clearance. An eastbound vessel must be able to pass Arnold Point within 1 hour of receipt of clearance. A clearance to enter the canal becomes invalid and a new one must be solicited whenever the pilot or shipmaster determines that the passage at these check points will not be made within 1 hour after the dispatcher has given a clearance to enter the Canal. The dispatcher will be furnished the actual time of passing these check points, along with the estimated time of arrival at Town Point or Reedy Point. A vessel entering or departing the Canal must also report to the dispatcher the time of passing the outer end of the jetties at Reedy Point and Old Town Point Wharf.
- (44) f. A clearance by the dispatcher for a vessel's passage through the waterway shall not relieve the owners, agents, and operators of the vessel of full responsibility of its safe passage.
- (45) 3. The traffic controls located at Reedy Point and Old Town Point Wharf consist of a flashing green light when the Canal is open and a flashing red light when it is closed.
- (46) 4. Vessel monitoring is performed by TV cameras, located at Reedy Point, Old Town Point Wharf. and the Conrail Railroad Bridge. These cameras are remotely controlled and monitored by the dispatcher at Chesapeake City.
- (47) 5. Owners, designated agents, or pilots of vessels transiting the Canal will furnish statistical data on cargo and passengers by completing Waterway Traffic Report, ENG 3102-R, which will be mailed or delivered to the Philadelphia District Engineer. This form may be obtained from the District Engineer or the Superintendent of Operations and Maintenance, Chesapeake and Delaware Canal, at Chesapeake City.
- (48) 6. Vessel operators are warned that failure to comply with the rules and regulations governing traffic through the Canal will result in referral of violations to the U.S. Coast Guard.

Supplemental Local Regulations

- (49) The following rules regarding transit of dead ships or other structures not normally under tow through the Chesapeake and Delaware Canal are issued to supplement the rules and regulations governing the use,

administration and navigation of the waterway which are prescribed by the Secretary of the Army.

(50) These regulations appeared in a Notice to Mariners issued by District Engineer, Philadelphia District dated August 14, 1986, and were effective immediately.

(51) All dead and disabled ships, drydocks and all other structures not normally under tow must obtain specific advance approval to transit the waterway in accordance with this notice.

(52) Minimum requirements for these transits are as follows:

(53) (1) First class pilot or towing vessel operator, licensed by U.S. Coast Guard, with minimum experience of 10 previous trips through the C & D Canal, including one trip within the past year, will be on board to supervise transit.

(54) (2) Tugboat Assistance.

(55) (a) Vessels (structures) up to 350 feet in length: minimum 1 tug with at least 1,500 hp.

(56) (b) Vessels (structures) between 350 feet and 550 feet in length: minimum 2 tugs with at least 3,000 total hp.

(57) (c) Vessels (structures) between 550 feet and 760 feet in length: minimum 3 tugs with at least 6,000 total hp.

(58) Request for transit approval must be received by Chief, Operations Division at least 72 hours prior to desired transit time. Initial requests may be written or verbal. Verbal requests will be confirmed in writing. All requests will provide the following information:

(59) (1) The name and type of dead ship or structure, its length, width, height and draft.

(60) (2) The number, horsepower and configuration of towing vessel(s), including the length of any towing lines (hawsers) to be used.

(61) (3) Specific details regarding any characteristic(s) of the subject ship/structure which may impact on handling during transit through the Canal.

(62) (4) Name and telephone number of point of contact.

(63) Approval, if granted will be given for one transit on a specific date, during daylight hours, with no vessels overtaking or passing in opposite direction. All other rules and regulations governing transit of the Canal will remain in effect.

Channels

(64) The Federal project for the canal provides for a channel 35 feet deep and 400 feet wide. (See Notice to Mariners and latest edition of the chart for latest controlling depths.)

(65) The **Delaware City Branch Channel** extends northward from the canal at Mile 2.5 for 1.5 miles to the Delaware River at Delaware City. In May 1999, the

controlling depth was 5 feet in the channel entrance from the Delaware River shoaling rapidly along the sides, thence in 1983, the controlling depth was 6 feet in the channel. The entrance channel at the Chesapeake and Delaware Canal end of the branch was reported, in July 2000, to have a depth of 7 feet. A submerged pile was reported on the west side of the channel. Mariners are cautioned to stay well inside the north and south entrance channels.

(66) A highway bridge over the Delaware City Branch Channel about 1 mile northward of the canal has a bascule span with a clearance of 6 feet; the span is kept in a closed position and need not be opened for the passage of vessels. The overhead power and telephone cables just south of the bridge have a clearance of 30 feet; an overhead power cable 500 feet north of the bridge has a clearance of 64 feet.

(67) Delaware City has been described in chapter 6.

Anchorage

(68) An anchorage basin is provided on the south side of the canal at Mile 12.8, opposite Chesapeake City. The entrance to the basin is subject to periodic shoaling. In September 1997, a depth of 5½ to 9 feet was in the entrance; and thence, a depth of 7 to 12 feet was inside the basin. Free wharfage is available at the Government wharf on the west side of the basin.

(69) Regulations for the use of the anchorage and mooring basin are given in **207.100(e)** provided previously in this chapter.

(70) A **special anchorage**, with depths of 3 to 4 feet, is on the southeast side of the canal at Mile 16.3, northeastward of Courthouse Point. (See **110.1** and **110.70**, chapter 2, for limits and regulations.)

Local magnetic disturbance

(71) Differences of as much as 6° from the normal variation have been observed in Elk River Channel from Courthouse Point to Old Town Point.

Bridges and cables

(72) The canal is crossed by a vertical-lift bridge and four high-level fixed bridges. All bridge clearances mentioned are at the center of the canal. The fixed highway bridge at Mile 1.6 has a clearance of 136 feet. An overhead power cable with a clearance of 161 feet crosses the canal at Mile 3.5. The fixed highway bridge at St. Georges, Mile 5.0, has a clearance of 137 feet. The fixed highway bridge at Mile 5.3, has a clearance of 142 feet.

(73) The canal rail bridge across the canal at **Canal Station**, Mile 7.5, has a vertical-lift span with a clearance of 45 feet down and 138 feet up. (See **117.1 through**

117.59 and 117.235, chapter 2, for drawbridge regulations.) The overhead pipeline 1 mile west of the bridge at Mile 8.5 has a reported clearance of 133 feet, and an overhead power cable about 150 yards westward has a clearance of 159 feet.

- (74) The fixed highway bridge just west of the town of **Summit Bridge**, at Mile 9.2, has a clearance of 138 feet. Overhead power cables between this bridge and Chesapeake City have minimum clearances of 157 feet.

- (75) The fixed highway bridge at **Chesapeake City**, Mile 13.0, has a clearance of 140 feet.

Tides

- (76) The mean range of tide is 5.5 feet at the Delaware River end of the canal and 2.7 feet at Chesapeake City. High and low waters in Delaware River are about 2 hours later than in Elk River. The heights of high and low waters are greatly affected by the winds; northeast storms raise the level and westerly storms lower it. (See the Tide Tables for daily predictions for Reedy Point.)

- (77) **Staff gages**, with zeros set at **canal datum**, are at numerous places along the canal and at both ends. The datum is 2 feet below local mean low water at the mouth of Back Creek and about ½ foot below at Delaware River.

Currents

- (78) The current velocity is 2.6 knots on the flood and 2.1 knots on the ebb at the Reedy Point bridge, and about 2 knots at the Chesapeake City bridge. The flood sets eastward and the ebb westward. (See the Tidal Current Tables for daily predictions for Chesapeake City.) Storms may increase these velocities to 3.0 knots or more; at such times, tows usually have difficulty in making headway against the current.

Ice

- (79) Ice sufficient to interfere with the navigation of small craft may be expected at any time between December and April and is worst during January and February. The canal is kept open as long as possible. During mild winters, local vessels use the canal throughout most of the season, but strangers should make inquiries before attempting passage. Wooden vessels passing through thin ice are liable to be cut through at the waterline. Vessels with low horsepower are cautioned against transiting the canal in heavy ice.

- (80) During ice navigation season, the Chesapeake and Delaware Canal is a **Regulated Navigation Area**. (See **165.503**, chapter 2, for regulations.)

Pilotage, Chesapeake and Delaware Canal

- (81) Pilotage through the canal from Delaware River to Chesapeake City is provided by the Pilots' Association

for the Delaware Bay and River. (See Pilotage, Bay and River Delaware, indexed as such, chapter 6.) Pilotage from Chesapeake City to Maryland ports and to Washington, D.C., is provided by the Association of Maryland Pilots. (See chapter 15.) Both pilots associations maintain a common station on the north bank of the canal at Chesapeake City. A white motor launch is used for exchanging pilots in the general vicinity of Chesapeake City. Vessels proceeding from Chesapeake City to Washington, D.C. or the lower part of Chesapeake Bay, when using Maryland pilots, sometimes transfer pilots at a designated transfer area in Chesapeake Bay off the entrance to Patuxent River or on the Potomac River off Piney Point, depending on the port of call.

- (82) The Maryland pilots are replaced by Virginia pilots off the entrance of the Patuxent River or on the Potomac River off Piney Point, depending on the port of call.

- (83) The Chesapeake and Interstate Pilots Association offers pilot services to U.S. vessels, engaged in the coastwise trade, and to public vessels transiting the Chesapeake and Delaware Canal. Pilots will meet vessels between Cape Henlopen, any port or place on the Delaware Bay and River, or any port or place on the Chesapeake Bay and its tributaries and provide all pilot services required when vessels use the canal. Arrangements for pilots are made through ships' agents or the pilot office in Norfolk (telephone, 757-855-2733). The pilots use commercial launch services. Pilots monitor VHF-FM channel 16 one hour prior to last ETA. Advance pilot orders requested with 6-hour ETA update and any subsequent changes requested. The pilot office can also be contacted through the Maritel Marine Operator.

- (84) All pilots carry radiotelephones for bridge-to-bridge communications and for communications with the canal traffic dispatcher at Chesapeake City. Delaware Bay and River pilots use VHF-FM channel 14, and the Maryland pilots use VHF-FM channel 11; all associations use VHF-FM channel 13.

- (85) The traffic dispatcher at Chesapeake City also monitors VHF-FM channel 16 and channel 13 on a 24-hour basis.

Supplies and repairs

- (86) At Mile 7.5, on the N side of the canal, is a private marina. The entrance is marked by private buoys. In December 1991, the entrance channel and basin had reported depths of 10 feet. Berths with electricity, telephones, water, cable hookups, gasoline, diesel fuel, marine supplies and sewage pump-out are available. Hull and engine repairs, dry storage and a 50 ton travel lift are also available. The harbormaster is available 24 hours a day and monitors VHF-FM channel 16.

(87) At Chesapeake City, berths, gasoline, diesel fuel, and some marine supplies are available. The principal wharves and slips have reported depths of 7 to 17 feet at their faces.

(88) At Mile 16.2, 0.4 mile eastward of **Courthouse Point**, a privately marked channel leads to a marina. In August 1999, the channel had a reported controlling

depth of 3 feet. Berths, gasoline, and marine supplies are available. Hull and engine repairs can be made; a 20-ton mobile hoist is available. A boatyard on Courthouse Point has gasoline and a 6-ton lift; minor hull and engine repairs can be made.

(89) (For discussion of Elk River and the upper part of Chesapeake Bay, see chapter 15.)

